**PEOPLE’S DEMOCRATIC REPUBLIC OF ALGERIA**

**MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH**

**UNIVERSITY M’HAMED BOUGARA OF BOUMERDES**



**F**aculty of Technology

**Doctoral Thesis**

Presented by:

**………………………………..**

Submitted for the Fulfilment of the Requirements of the **DOCTORAT-LMD** degree in

**Field:** ………………….

**Specialty:** …………………………….

……………….title……………………………..

**In front of a jury composed of**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Pr. |  |  |  | President |
| Dr. |  |  |  | Supervisor |
| Dr. |  |  |  | Examiner |
| Dr. |  |  |  | Examiner |
| Dr. |  |  |  | Examiner |

Academic Year: 2023/20224